

South African Guidelines Excellence (SAGE): Clinical practice guidelines – quality and credibility



Over the past 15 years, the processes for developing clinical practice guidelines (CPGs) have shifted from their being written by experts (or based on expert opinion) to being largely written by methodologists.

CPGs are quality improvement tools, and although they are presented in different ways, their aims are commonly to standardise care, improve its quality and safety, reduce wastage, decrease unnecessary costs, and improve access to care and patient outcomes.^[1-3]

With the emergence of international collaborations such as the Guidelines International Network (G-I-N),^[4] there have been concerted attempts to standardise CPG writing practices across countries, to increase the credibility of the final products.^[5-7] Without adherence to rigorous guideline development and reporting standards, the considerable time and effort put into developing guidelines may be wasted, as intended users may not have confidence in the recommendations made.

South Africa (SA) is an emerging African leader in CPGs. However, there is room for improvement if SA CPG activities are to match global standards.^[7] In April 2014, the *SAMJ* signalled on its website the appointment of an editorial subcommittee whose specific mandate would be to review guidelines submitted for publication. The *SAMJ* has regularly published guidelines and recommendations for the management of a variety of conditions. These will in future be adjudicated using the AGREE II instrument (www.agreetrust.org). An editorial in the May issue entitled 'AGREE to disagree' recognised the important role that CPGs play in setting standards of clinical practice in SA, and introduced a formalised mechanism to assess CPG quality prior to publication.^[8]

This editorial outlines and discusses key aspects of CPG quality, and sets the scene for the South African Guidelines Excellence (SAGE)

project, funded for 3 years by the South African Medical Research Council. This innovative research partnership aims to improve the quality and reach of SA primary care CPGs. Using stakeholder-driven processes, SAGE will provide tools to assist effective SA CPG activities in developing, adapting, adopting, contextualising and implementing primary care CPGs.

International standards for guideline developers

Between 2011 and 2013, three standards were independently proposed, to assist CPG developers in addressing key issues of quality (Institute of Medicine (IOM) 8 standards,^[2] G-I-N 11 standards,^[4] and McMaster University group 18 standards^[9]). Concurrently, two checklists were independently developed to appraise CPG quality. The AGREE II checklist (Appraisal of Guideline ResEarch and Evaluation) uses six domains incorporating 23 items (each scored 1 - 7),^[10] while the iCAHE checklist (International Centre for Allied Health Evidence) provides a simpler alternative for policy makers and clinicians, with seven domains incorporating 14 binary items.^[11] Table 1 compares the items in each checklist, using the AGREE II domains to standardise comparison. Domains common to all instruments are 'stakeholder involvement', 'underlying evidence', 'currency' and 'clarity'.

Stakeholder involvement. Stakeholder (end-user) involvement directly links CPGs to ownership, and downstream implementation. It is therefore an essential initial step to identify all relevant stakeholders within a CPG's scope and purpose, and then determine the role each stakeholder might play in the CPG development process. This assists determination of clear terms of reference. Stakeholder engagement can either occur individually ('experts' working with the methodology team) or as a collective (providing feedback on CPG drafts, or at public consultations).

Table 1. Common domains and strategies for clinical guideline quality from various quality assessment tools*

Domains†	IOM standards	G-I-N elements	McMaster topics	AGREE II questions	iCAHE questions
Scope and purpose		4. Scope of a guideline	2. Priority setting 5. Identifying target audience and topic selection	Q1. The overall objectives of the guideline are specifically described Q2. The health questions covered by the guideline are specifically described Q3. The population to whom the guideline is meant to apply is specifically described	Q13. Are the purpose and target users of the guideline stated?
Stakeholder involvement	3. Guideline development group composition 7. External review	1. Composition of guideline development group 3. Conflicts of interest 9. Peer review and stakeholder consultations	3. Guideline group membership 6. Consumer and stakeholder involvement 15. Reporting and peer review	Q6. The target users are clearly defined Q4. The guideline development group includes individuals from all relevant professional groups Q5. The views and preferences of the target population have been sought	Q11. Are the developers clearly stated? Q12. Do the qualifications and expertise of the guideline developers link with the purpose of the guideline and its end users?
Underlying evidence/rigour	1. Establishing transparency 4. Clinical practice guideline – systematic review intersection 5. Establishing evidence foundations for and rating strength of recommendations	2. Decision-making process 5. Methods 6. Evidence reviews 8. Rating of evidence and recommendations	8. PICO question generation 9. Considering importance of outcomes and interventions, values, preferences and utilities 10. Deciding what evidence to include and searching for evidence 11. Summarising evidence and considering additional information 12. Judging quality, strength or certainty of a body of evidence	Q7. Systematic methods were used to search for the evidence Q8. The criteria for selecting the evidence are clearly described Q9. The strengths and limitations of the body of evidence are clearly described Q10. The methods for formulating the recommendations are clearly described Q11. The health benefits, side-effects and risks have been considered in formulating the recommendations Q12. There is an explicit link between the recommendations and the supporting evidence	Q7. Does the guideline provide an outline of the strategy used to find underlying evidence? Q8. Does the guideline use a hierarchy to rank the quality of the underlying evidence? Q9. Does the guideline appraise the quality of the evidence which underpins its recommendations? Q10. Does the guideline link the hierarchy and quality of underlying evidence to each recommendation? Q6. Does the guideline provide dates for when literature was included?
Currency	8. Updating	10. Guideline expiration and updating	18. Updating	Q14. A procedure for updating the guideline is provided	Q4. Is there a date of completion available? Q5. Does the guideline provide an anticipated review date?
Clarity	6. Articulation of recommendations	7. Guideline recommendations	13. Developing recommendations and determining their strength 14. Wording of recommendations and of considerations of implementation, feasibility and equity	Q15. The recommendations are specific and unambiguous Q16. The different options for management of the condition or health issues are clearly presented Q17. Key recommendations are easily identifiable	Q14. Is the guideline readable and easy to navigate? Q1. Is the guideline readily available in full text? Q2. Does the guideline provide a complete reference list? Q3. Does the guideline provide a summary of its recommendations?
Independence	2. Management of conflict of interest	11. Financial support and sponsoring organisation	7. Conflict of interest considerations	Q13. The guideline has been externally reviewed by experts prior to its publication Q22. The views of the funding body have not influenced the content of the guideline Q23. Competing interests of guideline development group members have been recorded and addressed	

PICO: P = patient, population, problem; I = intervention (or exposure); C = comparator (or control); O = outcome.

*The table only lists common domains with agreement from at least four/five instruments.

†The relevant item in each instrument, and its item number, are mapped against each AGREE II domain, hence item numbers of instruments other than the AGREE II may be out of numerical order.

Scope and purpose. The CPG *purpose* intrinsically links with end-users and the target audience (people to whom the guidance is being directed). The CPG *scope* also underpins the framing of the research questions. For instance, for a CPG aimed at primary care clinicians, research questions would not be raised about care provided in other sectors. Defining scope and purpose early, and clearly, assists in determining which stakeholders need to be engaged, how, and in what ways.

Independence. It is critical that everyone involved in CPG development is identified, their qualifications listed and their role on the guideline team described, and potential conflicts of interest declared in writing throughout the CPG activity. Funding for the CPG and endorsements should be stated clearly.^[12] Independence is essential when sourcing and critiquing the evidence, so that one person's or group's view of the literature does not dominate.^[13]

Underlying evidence. A good-quality CPG should include a comprehensive 'Methods' section, which outlines the research questions, how the literature was accessed (databases, search terms/ key words, inclusion/exclusion criteria), how the research was critiqued (hierarchy of evidence, critical appraisal tools), how data were extracted, and how the strength of the body of evidence was determined and reported for each recommendation. A comprehensive reference list of included papers should be provided, so that end-users can identify literature underpinning each recommendation.

Currency. With an estimated 1.8 million peer-reviewed articles published in academic journals by the end of 2012,^[14] ensuring that CPGs are based on current evidence is a constant challenge. This requires regular updating, using the protocols established during initial CPG development. Before updating, CPG developers should first identify new issues that have arisen since the previous CPG was published. They should also consider the relevance of the questions 'carried forward' from the last CPG. Literature searches should be undertaken from the date of completion of the previous search to the present, to update the evidence base. The relevance of any new findings should be factored into previous recommendations, using a standard approach.^[1]

Clarity. Clearly written CPGs and comprehensive supporting documentation are essential to ensure that end-users can be confident that they can trust the recommendations. This reduces barriers to uptake and implementation.^[2] Moreover, the use of standard clear wording when writing recommendations is encouraged, to clearly link the strength of the evidence body with the wording of the recommendation.^[6,15]

Conclusion

In this editorial, the first in a series of six, we present issues critical to CPG development and uptake, relevant to SA and beyond. While recent local efforts to improve CPG quality and credibility in SA are commendable,^[8,7] opportunities to progress SA CPG quality and uptake are limited by the lack of a central, nationally recognised and accepted CPG development unit. Such a unit has the potential to significantly increase SA efforts to improve and standardise high-quality, credible CPG development, reporting and uptake. To this end, the Project SAGE team is engaging in a 3-year stakeholder-driven process that aims to better understand the guideline development arena in SA, and improve the standard of local

guideline development, adaptation, contextualisation, and ultimately implementation of primary healthcare guidelines.

Shingai Machingaidze, Tamara Kredo

Cochrane South Africa, South African Medical Research Council, Cape Town, South Africa

Quinette Louw

Department of Physiotherapy, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, Cape Town, South Africa, and Cochrane South Africa, SA Medical Research Council, Cape Town

Taryn Young

Centre for Evidence-Based Health Care, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, Cape Town, South Africa, and Cochrane South Africa, SA Medical Research Council, Cape Town

Karen Grimmer

International Centre for Allied Health Evidence, University of South Australia, Adelaide, Australia, and Department of Physiotherapy, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, Cape Town, South Africa

Corresponding author: S Machingaidze (shingai.machingaidze@mrc.ac.za)

- Field MJ, Lohr KN. Clinical Practice Guidelines: Directions for a New Program. Washington, DC: National Academy Press, 1990.
- Graham R, Mancher M, Wolman D, Greenfield S, Steinberg E. Clinical Practice Guidelines We Can Trust. Washington, DC: Institute of Medicine Committee on Standards for Developing Trustworthy Clinical Practice Guidelines/National Academies Press, 2011:15.
- Clearing House, International Centre for Allied Health Evidence (UniSA). <http://www.unisa.edu.au/Research/Sansom-Institute-for-Health-Research/Research-at-the-Sansom/Research-Concentrations/Allied-Health-Evidence/Resources/GuidelineCH/Low-Back-Pain-Guidelines/> (accessed 28 April 2015).
- Guidelines International Network (G-I-N). <http://www.g-i-n.net/> (accessed 28 April 2015).
- Guyatt GH, Oxman AD, Vist GE, Falck-Ytter Y, Alonso-Coello P, Schünemann HJ, and the GRADE working group. GRADE: An emerging consensus on rating quality of evidence and strength of recommendations. *BMJ* 2008;336:924. [<http://dx.doi.org/10.1136/bmj.39489.470347.AD>]
- Treweek S, Oxman A, Alderson P, et al. and the DECIDE Consortium. Developing and evaluating communication strategies to support informed decisions and practice based on evidence (DECIDE): Protocol and preliminary results. *Implement Sci* 2014;8:6. [<http://dx.doi.org/10.1186/1748-5908-8-6>]
- Kredo T, Gerritsen A, van Heerden J, Conway S, Siegfried N. Clinical practice guidelines within the Southern African Development Community: A descriptive study of the quality of guideline development and concordance with best evidence for five priority diseases. *Health Res Policy Syst* 2012;10:1. [<http://dx.doi.org/10.1186/1478-4505-10-1>]
- Wiseman R, Cohen K, Gray A, et al. AGREE to disagree: Critical appraisal and the publication of practice guidelines. *S Afr Med J* 2014;104(5):345-346. [<http://dx.doi.org/10.7196/samj.8215>]
- McMaster Guideline Development Checklist. <http://cebgrade.mcmaster.ca/guidelinechecklistonline.html> (accessed 28 April 2015).
- Brouwers M, Kho ME, Browman GP, et al. for the AGREE Next Steps Consortium. AGREE II: Advancing guideline development, reporting and evaluation in healthcare. *Can Med Assoc J* 2010;182(18):E839-E842. [<http://dx.doi.org/10.1503/cmaj.090449>]
- Grimmer K, Dixon J, Milanese S, et al. Efficient clinical evaluation of guideline quality: Development and testing of a new tool. *BMC Res Notes* 2014;14:63. [<http://dx.doi.org/10.1186/1471-2288-14-63>]
- Lurie P, Almeida CM, Stine N, Stine AR, Wolfe SM. Financial conflict of interest disclosure and voting patterns at Food and Drug Administration Drug Advisory Committee meetings. *JAMA* 2006;295(16):1921-1928. [<http://dx.doi.org/10.1001/jama.295.16.1921>]
- Shea BJ, Grimshaw JM, Wells GA, et al. Development of AMSTAR: A measurement tool to assess the methodological quality of systematic reviews. *BMC Med Res Methodol* 2007;7:10. [<http://dx.doi.org/10.1186/1471-2288-7-10>]
- Ware M, Mabe M. The STM Report: An Overview of Scientific and Scholarly Journal Publishing. The Hague: STM: International Association of Scientific, Technical and Medical Publishers, 2012.
- Shiffman RN, Dixon J, Brandt C, et al. The Guideline Implementability Appraisal (GLIA): Development of an instrument to identify obstacles to guideline implementation. *BMC Med Inform Decis Mak* 2005;5:23. [<http://dx.doi.org/10.1186/1472-6947-5-23>]

S Afr Med J 2015;105(9):743-745. DOI:10.7196/SAMJnew.7697